

CLAIMS

1. An image projection system comprising:
  - a light valve (12) comprising a pixel matrix array (120) disposed in rows and columns on a substrate (100) forming an active matrix,
  - an illumination system (1) for moving bands of different colored light over the light valve (12), perpendicularly to said rows,
  - means for identifying the illumination color of each row of pixels (120) of the light valve (12),
  - means of managing video data (15) of said images for controlling the writing of said pixels of the light valve (12),
  - means of synchronizing (11) the video data sent to each row of pixels (120) of the light valve (12) according to the illumination color of said row identified by said identification means,characterized in that the identification means comprise at least one photosensitive sensor disposed level with said pixels of the light valve (12).
- 25 2. The image projection system as claimed in claim 1, characterized in that each sensor is disposed level with a row of pixels of the light valve, and in that there are fewer sensors than there are rows of pixels, and in that it comprises calculation means for deducing the illumination color of the rows of pixels that are not provided with a sensor according to data delivered by said sensors.
- 35 3. The image projection system as claimed in claim 1, characterized in that the identification means comprise at least one photosensitive sensor (121) level with each row of pixels (120) of the light

valve (12), each sensor of a row being designed to identify the illumination color of that row.

4. The image projection system as claimed in any one  
5 of the preceding claims, characterized in that the  
or each photosensitive sensor (121) of the light  
valve (12) is incorporated in said substrate  
(100).
  
- 10 5. The image projection system as claimed in claim 3  
or claim 4 dependent on claim 3, characterized in  
that the or each photosensitive sensor (121) level  
with each row of pixels (120) is designed to  
measure the illumination intensity of each row of  
15 pixels (120) of the light valve (12).
  
6. The image projection system as claimed in any one  
of the preceding claims, characterized in that the  
or each photosensitive sensor (121) is associated  
20 with a colored filter (109).
  
7. The image projection system as claimed in claim 6,  
characterized in that said colored filter (109)  
associated with said photosensitive sensor (121)  
25 of each row of pixels (120) of the light valve  
(12) forms a continuous band associated with the  
set of photosensitive sensors (121) of each row of  
pixels (120) of the light valve (12).
  
- 30 8. The image projection system as claimed in any one  
of the preceding claims, characterized in that the  
light valve (12) is of reflective type.